

RAW SEQUENCE LISTING

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Application Serial Number: 10/555,544
Source: JFWP
Date Processed by STIC: 11/01/2006

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RAW SEQUENCE LISTING

DATE: 11/01/2006

PATENT APPLICATION: US/10/555,544

TIME: 11:06:12

Input Set : A:\SAEG129.016APCSequence Listing.txt

Output Set: N:\CRF4\11012006\J555544.raw

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3 <110> APPLICANT: Ohmiya, Yoshihiro
4   Nakajima, Yoshihiro
6 <120> TITLE OF INVENTION: Multiple gene transcription activity assay system
8 <130> FILE REFERENCE: SAEG129.016APC
10 <140> CURRENT APPLICATION NUMBER: 10/555,544
C--> 11 <141> CURRENT FILING DATE: 2005-11-04
13 <150> PRIOR APPLICATION NUMBER: JP2003-127629
14 <151> PRIOR FILING DATE: 2003-05-06
16 <150> PRIOR APPLICATION NUMBER: JP2003-407564
17 <151> PRIOR FILING DATE: 2003-12-05
19 <160> NUMBER OF SEQ ID NOS: 65
21 <170> SOFTWARE: PatentIn version 3.1
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 1638
25 <212> TYPE: DNA
26 <213> ORGANISM: Wild Type Phrixothrix Green Luciferase
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33 gatgctcata caaatgaagt aatatcatat gctcaaatat ttgaaaccag ctgccgctta      180
35 gctgttagta tagaacaata tggcttgaat gaaaacaatg ttgtgggtgt atgcagtga      240
37 aacaatataa acttttttaa tcctgtcctt gctgctttat acttaggaat accagtagca      300
39 acatcaaata atagtacac agatggagag ttaactggtc atttgaatat atcaaaacca      360
41 actatcatgt ttagttcaaa gaaagcactc ccgcttattc tgagagtaca gcaaaatcta      420
43 agtttcatga aaaaagtcgt agttatcgat agcatgtacg acattaatgg cgttgaatgc      480
45 gtatctacct ttgttgcaag ttatactgac cacacctttg atccattgtc atttacacca      540
47 aaagattttg atccccctga aaaaatcgca ttaattatgt catcatctgg aacaactgga      600
49 ttgcctaagg gtgtagtact gagccataga agtctaacta taagattcgt tcatagcagg      660
51 gatcccatat atggcactcg tacggttcca caaacatcaa ttctttcctt agtaccgttc      720
53 catcatgcct ttggaatggt tactacatta tcttactttg tagtaggact taaggttgta      780
55 atgttgaaag aatttgaggg cgcacttttc ttaaaaacca tacagaatta caaaatcccc      840
57 actattgtag tggccccctcc agttatggtg tttttggcta aaagcccat agtcgatcaa      900
59 tacgatttat cgagcttaac ggaagttgct actggaggag ctcccttagg aaaagatgtc      960
61 gcagaagcag tagcaaagag gttgaaatta cctggaatca tacaaggata tggattaact     1020
63 gaaacttgct gcgctgtaat gattaccctt cataatgctg tgaaaacagg ttcaactgga     1080
65 agacccttgc catacattaa agctaaagtt ttagataacg ctactgggaa ggcgctagga     1140
67 ccaggagaaa gaggcgaaat atgctttaaa agtgaaatga ttatgaaagg atattacaac     1200
69 aatccggaag caactattga tactattgac aaagatggtt ggcttcattc tggagatatt     1260
71 ggatattacg acgaagatgg aaatttcttt atagttgatc gattgaaaga acttattaaa     1320
73 tacaagggat atcagggttg gctgtgtgaa ctggaaaatc tgcttttaca acatccaagt     1380
75 attgctgatg cgggtgttac tggagttccg gacgaatttg ctggacaatt acctgctgct     1440
77 tgtgttgtgt tagaatctgg caagacgctg actgaaaagg aagttcaaga ttttattgca     1500
79 gcacaagtca ctccaacaaa gcatcttcga ggcggtgtcg tattttaga cagtattccg     1560

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83 ccaaaatcaa aattataa 1638
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87 <211> LENGTH: 545
88 <212> TYPE: PRT
89 <213> ORGANISM: Wild Type Phrixothrix Green Luciferase
91 <400> SEQUENCE: 2
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94 1 5 10 15
97 His Pro Gly Ser Ala Gly Gln Gln Leu Tyr Gln Ser Leu Tyr Lys Phe
98 20 25 30
101 Ala Ser Phe Pro Glu Ala Ile Ile Asp Ala His Thr Asn Glu Val Ile
102 35 40 45
105 Ser Tyr Ala Gln Ile Phe Glu Thr Ser Cys Arg Leu Ala Val Ser Ile
106 50 55 60
109 Glu Gln Tyr Gly Leu Asn Glu Asn Asn Val Val Gly Val Cys Ser Glu
110 65 70 75 80
113 Asn Asn Ile Asn Phe Phe Asn Pro Val Leu Ala Ala Leu Tyr Leu Gly
114 85 90 95
117 Ile Pro Val Ala Thr Ser Asn Asp Met Tyr Thr Asp Gly Glu Leu Thr
118 100 105 110
121 Gly His Leu Asn Ile Ser Lys Pro Thr Ile Met Phe Ser Ser Lys Lys
122 115 120 125
125 Ala Leu Pro Leu Ile Leu Arg Val Gln Gln Asn Leu Ser Phe Ile Lys
126 130 135 140
129 Lys Val Val Val Ile Asp Ser Met Tyr Asp Ile Asn Gly Val Glu Cys
130 145 150 155 160
133 Val Ser Thr Phe Val Ala Arg Tyr Thr Asp His Thr Phe Asp Pro Leu
134 165 170 175
137 Ser Phe Thr Pro Lys Asp Phe Asp Pro Leu Glu Lys Ile Ala Leu Ile
138 180 185 190
141 Met Ser Ser Ser Gly Thr Thr Gly Leu Pro Lys Gly Val Val Leu Ser
142 195 200 205
145 His Arg Ser Leu Thr Ile Arg Phe Val His Ser Arg Asp Pro Ile Tyr
146 210 215 220
149 Gly Thr Arg Thr Val Pro Gln Thr Ser Ile Leu Ser Leu Val Pro Phe
150 225 230 235 240
153 His His Ala Phe Gly Met Phe Thr Thr Leu Ser Tyr Phe Val Val Gly
154 245 250 255
157 Leu Lys Val Val Met Leu Lys Lys Phe Glu Gly Ala Leu Phe Leu Lys
158 260 265 270
161 Thr Ile Gln Asn Tyr Lys Ile Pro Thr Ile Val Val Ala Pro Pro Val
162 275 280 285
165 Met Val Phe Leu Ala Lys Ser Pro Leu Val Asp Gln Tyr Asp Leu Ser
166 290 295 300
169 Ser Leu Thr Glu Val Ala Thr Gly Gly Ala Pro Leu Gly Lys Asp Val
170 305 310 315 320
173 Ala Glu Ala Val Ala Lys Arg Leu Lys Leu Pro Gly Ile Ile Gln Gly
174 325 330 335

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177 Tyr Gly Leu Thr Glu Thr Cys Cys Ala Val Met Ile Thr Pro His Asn
178           340           345           350
181 Ala Val Lys Thr Gly Ser Thr Gly Arg Pro Leu Pro Tyr Ile Lys Ala
182           355           360           365
185 Lys Val Leu Asp Asn Ala Thr Gly Lys Ala Leu Gly Pro Gly Glu Arg
186           370           375           380
189 Gly Glu Ile Cys Phe Lys Ser Glu Met Ile Met Lys Gly Tyr Tyr Asn
190 385           390           395           400
193 Asn Pro Glu Ala Thr Ile Asp Thr Ile Asp Lys Asp Gly Trp Leu His
194           405           410           415
197 Ser Gly Asp Ile Gly Tyr Tyr Asp Glu Asp Gly Asn Phe Phe Ile Val
198           420           425           430
201 Asp Arg Leu Lys Glu Leu Ile Lys Tyr Lys Gly Tyr Gln Val Ala Pro
202           435           440           445
205 Ala Glu Leu Glu Asn Leu Leu Leu Gln His Pro Ser Ile Ala Asp Ala
206           450           455           460
209 Gly Val Thr Gly Val Pro Asp Glu Phe Ala Gly Gln Leu Pro Ala Ala
210 465           470           475           480
213 Cys Val Val Leu Glu Ser Gly Lys Thr Leu Thr Glu Lys Glu Val Gln
214           485           490           495
217 Asp Phe Ile Ala Ala Gln Val Thr Pro Thr Lys His Leu Arg Gly Gly
218           500           505           510
221 Val Val Phe Val Asp Ser Ile Pro Lys Gly Pro Thr Gly Lys Leu Ile
222           515           520           525
225 Arg Lys Glu Leu Arg Glu Ile Phe Ala Gln Arg Ala Pro Lys Ser Lys
226           530           535           540
229 Leu
230 545

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233 <210> SEQ ID NO: 3

234 <211> LENGTH: 1641

235 <212> TYPE: DNA

236 <213> ORGANISM: Wild Type Phrixothrix Red Luciferase

238 <400> SEQUENCE: 3

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241 gcaggactac aattatatca atcattatat aaatattcat atattactga cggaataatc      120
243 gatgcccata ccaatgaagt aatatcatat gctcaaatat ttgaaaccag ctgccgcttg      180
245 gcagttagtc tagaaaaata tggcttggat cataacaatg ttgtggcaat atgcagtgaa      240
247 aacaacatac acttttttgg ccctttaatt gctgctttat accaaggaat accaatggca      300
249 acatcaaatg atatgtacac agaaagggag atgattggcc atttgaatat atcgaaacca      360
251 tgccttatgt tttgttcaaa gaaatcactc ccatttattc tgaaagtaca aaaacatcta      420
253 gatttcctta aaaaagtcac agtcattgat agtatgtacg atatcaatgg cgttgaatgc      480
255 gtatttagct ttgtttcacg ttatactgat cagcgccttg atccagtga atttaaccca      540
257 aaagagtttg atcccttgga aagaaccgca ttaattatga catcatctgg aacaactgga      600
259 ttgcctaaag gggtagtaat aagccataga agtataacta taagattcgt ccatagcagt      660
261 gatcccatct atggtactcg tattgtccca gatacatcaa ttcttgctat agcaccgttc      720
263 catcatgcct ttggactgtt tactgcacta gcttactttc cagtaggact taagattgta      780
265 atggtgaaga aatttgaggg cgaattcttc ttaaaaacca tacaaaatta caaaatcgct      840
267 tctattgtag ttctcctccc aattatggta tatttggtta aaagtccatt agtcgatgaa      900
269 tacaatttat cgagcttaac ggaaattgct tgtggagggc ctcctttagg aagagatatc      960

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271 gcagataaag tagcaaagag attgaaagta catggaatcc tacaaggata tggattaacc 1020
273 gaaacctgca gcgctctaata acttagcccc aatgatcgag aacttaaaaa aggtgcaatt 1080
275 ggaacgccta tgccatatgt tcaagttaaa gttatagata tcaatactgg gaaggcgcta 1140
277 ggaccaagag aaaaaggcga aatatgtctt aaaagtcaaa tgcttatgaa aggatatcac 1200
279 aacaatccgc aagcaactcg tgatgctctt gacaaagatg gttggcttca tactggggat 1260
281 cttggatatt acgacgaaga cagatttata tatgtagttg atcgattgaa agaacttatt 1320
283 aaatataaag gatatacagg tgcgcctgct gaactggaaa atctgctttt acaacatcca 1380
285 aatattttctg atgcgggtgt tattggaatt ccggacgaat ttgctgggtca attaccttcc 1440
287 gcgtgtgttg tgtagagacc tggttaagaca atgaccgaaa aggaagttca ggattatatt 1500
289 gcagagctag tactacaac taaacatctt cgaggcggtg tcgtatttat agatagtatt 1560
291 ccaaaggccc caacaggaaa actcatgaga aacgaactcc gtgcaatatt tgcccgggaa 1620
293 caggcaaaat caaaattata a
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297 <211> LENGTH: 546
298 <212> TYPE: PRT
299 <213> ORGANISM: Wild Type Phrixothrix Red Luciferase
301 <400> SEQUENCE: 4
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304 1 5 10 15
307 Phe Pro Gly Thr Ala Gly Leu Gln Leu Tyr Gln Ser Leu Tyr Lys Tyr
308 20 25 30
311 Ser Tyr Ile Thr Asp Gly Ile Ile Asp Ala His Thr Asn Glu Val Ile
312 35 40 45
315 Ser Tyr Ala Gln Ile Phe Glu Thr Ser Cys Arg Leu Ala Val Ser Leu
316 50 55 60
319 Glu Lys Tyr Gly Leu Asp His Asn Asn Val Val Ala Ile Cys Ser Glu
320 65 70 75 80
323 Asn Asn Ile His Phe Phe Gly Pro Leu Ile Ala Ala Leu Tyr Gln Gly
324 85 90 95
327 Ile Pro Met Ala Thr Ser Asn Asp Met Tyr Thr Glu Arg Glu Met Ile
328 100 105 110
331 Gly His Leu Asn Ile Ser Lys Pro Cys Leu Met Phe Cys Ser Lys Lys
332 115 120 125
335 Ser Leu Pro Phe Ile Leu Lys Val Gln Lys His Leu Asp Phe Leu Lys
336 130 135 140
339 Lys Val Ile Val Ile Asp Ser Met Tyr Asp Ile Asn Gly Val Glu Cys
340 145 150 155 160
343 Val Phe Ser Phe Val Ser Arg Tyr Thr Asp His Ala Phe Asp Pro Val
344 165 170 175
347 Lys Phe Asn Pro Lys Glu Phe Asp Pro Leu Glu Arg Thr Ala Leu Ile
348 180 185 190
351 Met Thr Ser Ser Gly Thr Thr Gly Leu Pro Lys Gly Val Val Ile Ser
352 195 200 205
355 His Arg Ser Ile Thr Ile Arg Phe Val His Ser Ser Asp Pro Ile Tyr
356 210 215 220
359 Gly Thr Arg Ile Ala Pro Asp Thr Ser Ile Leu Ala Ile Ala Pro Phe
360 225 230 235 240
363 His His Ala Phe Gly Leu Phe Thr Ala Leu Ala Tyr Phe Pro Val Gly
364 245 250 255

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367 Leu Lys Ile Val Met Val Lys Lys Phe Glu Gly Glu Phe Phe Leu Lys
368           260           265           270
371 Thr Ile Gln Asn Tyr Lys Ile Ala Ser Ile Val Val Pro Pro Pro Ile
372           275           280           285
375 Met Val Tyr Leu Ala Lys Ser Pro Leu Val Asp Glu Tyr Asn Leu Ser
376           290           295           300
379 Ser Leu Thr Glu Ile Ala Cys Gly Gly Ser Pro Leu Gly Arg Asp Ile
380 305           310           315           320
383 Ala Asp Lys Val Ala Lys Arg Leu Lys Val His Gly Ile Leu Gln Gly
384           325           330           335
387 Tyr Gly Leu Thr Glu Thr Cys Ser Ala Leu Ile Leu Ser Pro Asn Asp
388           340           345           350
391 Arg Glu Leu Lys Lys Gly Ala Ile Gly Thr Pro Met Pro Tyr Val Gln
392           355           360           365
395 Val Lys Val Ile Asp Ile Asn Thr Gly Lys Ala Leu Gly Pro Arg Glu
396           370           375           380
399 Lys Gly Glu Ile Cys Phe Lys Ser Gln Met Leu Met Lys Gly Tyr His
400 385           390           395           400
403 Asn Asn Pro Gln Ala Thr Arg Asp Ala Leu Asp Lys Asp Gly Trp Leu
404           405           410           415
407 His Thr Gly Asp Leu Gly Tyr Tyr Asp Glu Asp Arg Phe Ile Tyr Val
408           420           425           430
411 Val Asp Arg Leu Lys Glu Leu Ile Lys Tyr Lys Gly Tyr Gln Val Ala
412           435           440           445
415 Pro Ala Glu Leu Glu Asn Leu Leu Leu Gln His Pro Asn Ile Ser Asp
416           450           455           460
419 Ala Gly Val Ile Gly Ile Pro Asp Glu Phe Ala Gly Gln Leu Pro Ser
420 465           470           475           480
423 Ala Cys Val Val Leu Glu Pro Gly Lys Thr Met Thr Glu Lys Glu Val
424           485           490           495
427 Gln Asp Tyr Ile Ala Glu Leu Val Thr Thr Thr Lys His Leu Arg Gly
428           500           505           510
431 Gly Val Val Phe Ile Asp Ser Ile Pro Lys Gly Pro Thr Gly Lys Leu
432           515           520           525
435 Met Arg Asn Glu Leu Arg Ala Ile Phe Ala Arg Glu Gln Ala Lys Ser
436           530           535           540
439 Lys Leu
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444 <211> LENGTH: 1760
445 <212> TYPE: DNA
446 <213> ORGANISM: Phrixothrix Red Luciferase of US2002-0119542-A1
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453 atcattatat aaatattcat atattactga cggataatc gatgcccata ccaatgaagt      180
455 aatatcatat gctcaaatat ttgaaaccag ctgccgcttg gcagttagtc tagaaaaata      240
457 tggcttggat cataacaatg ttgtggcaat atgcagtga aacaacatac acttttttgg      300
459 ccctttaatt gctgctttat accaaggaat accaatggca acatcaaatg atatgtacac      360

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VERIFICATION SUMMARY

DATE: 11/01/2006

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TIME: 11:06:13

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